



Actual Wellpath Report

ERP 15H awp Proj: 25140'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999941	Report Generated	7/7/2025 at 2:21:57 PM
Convergence at slot	0.49° West	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	16.95	64.89	1750876.85	428455.02	39°40'25.5415"N	80°16'23.3826"W
Facility Reference Pt			1750811.96	428438.07	39°40'25.3685"N	80°16'24.2106"W
Field Reference Pt			1777685.71	440640.65	39°42'28.1140"N	80°10'41.6900"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 873 (KB) to Facility Vertical Datum	1366.50ft
Horizontal Reference Pt	Slot	Patterson 873 (KB) to Mean Sea Level	1366.50ft
Vertical Reference Pt	Patterson 873 (KB)	Patterson 873 (KB) to Ground Level at Slot (15H)	28.50ft
MD Reference Pt	Patterson 873 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	326.37°

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WELLPATH DATA (275 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
0.00†	0.000	319.810	0.00	0.00	0.00	0.00	1750876.85	428455.02	39°40'25.5415"N	80°16'23.3826"W	0.00	0.000	0.00
28.50	0.000	319.810	28.50	0.00	0.00	0.00	1750876.85	428455.02	39°40'25.5415"N	80°16'23.3826"W	0.00	0.000	0.00
50.00	0.150	319.810	50.00	0.03	0.02	-0.02	1750876.83	428455.04	39°40'25.5417"N	80°16'23.3828"W	0.03	319.810	0.70
100.00	0.300	311.640	100.00	0.22	0.16	-0.16	1750876.69	428455.18	39°40'25.5430"N	80°16'23.3846"W	0.22	315.045	0.31
150.00	0.560	344.990	150.00	0.58	0.48	-0.32	1750876.53	428455.50	39°40'25.5462"N	80°16'23.3867"W	0.58	326.445	0.70
200.00	0.380	342.420	200.00	0.97	0.88	-0.43	1750876.42	428455.90	39°40'25.5501"N	80°16'23.3882"W	0.98	333.701	0.36
250.00	0.490	355.470	250.00	1.31	1.25	-0.50	1750876.35	428456.27	39°40'25.5538"N	80°16'23.3891"W	1.34	338.160	0.29
300.00	0.370	21.890	299.99	1.59	1.61	-0.46	1750876.39	428456.63	39°40'25.5574"N	80°16'23.3886"W	1.67	344.171	0.46
350.00	0.580	66.700	349.99	1.64	1.86	-0.16	1750876.69	428456.88	39°40'25.5599"N	80°16'23.3849"W	1.87	354.968	0.82
400.00	1.130	60.270	399.99	1.56	2.20	0.50	1750877.35	428457.22	39°40'25.5633"N	80°16'23.3765"W	2.26	12.703	1.11
450.00	1.380	29.880	449.97	1.80	2.97	1.22	1750878.07	428457.99	39°40'25.5710"N	80°16'23.3672"W	3.21	22.408	1.40
500.00	0.680	10.690	499.97	2.28	3.78	1.58	1750878.43	428458.80	39°40'25.5790"N	80°16'23.3628"W	4.10	22.660	1.54
550.00	0.720	35.220	549.96	2.60	4.33	1.82	1750878.67	428459.35	39°40'25.5845"N	80°16'23.3598"W	4.70	22.743	0.60
600.00	1.020	75.590	599.96	2.57	4.70	2.43	1750879.28	428459.72	39°40'25.5881"N	80°16'23.3520"W	5.29	27.324	1.33
650.00	1.350	75.130	649.95	2.23	4.96	3.43	1750880.28	428459.98	39°40'25.5908"N	80°16'23.3393"W	6.03	34.645	0.66
700.00	0.520	20.490	699.94	2.18	5.33	4.08	1750880.93	428460.35	39°40'25.5945"N	80°16'23.3310"W	6.71	37.439	2.26
750.00	0.840	37.200	749.94	2.43	5.83	4.38	1750881.23	428460.85	39°40'25.5995"N	80°16'23.3272"W	7.29	36.907	0.75
800.00	1.070	82.290	799.93	2.35	6.18	5.06	1750881.91	428461.20	39°40'25.6030"N	80°16'23.3185"W	7.99	39.303	1.52
850.00	1.560	68.130	849.92	2.00	6.50	6.16	1750883.01	428461.52	39°40'25.6063"N	80°16'23.3045"W	8.95	43.444	1.17
900.00	0.910	23.270	899.91	2.08	7.12	6.95	1750883.79	428462.14	39°40'25.6124"N	80°16'23.2945"W	9.95	44.293	2.24
950.00	1.870	86.120	949.89	1.89	7.54	7.92	1750884.77	428462.56	39°40'25.6167"N	80°16'23.2822"W	10.93	46.398	3.33
1000.00	2.140	59.250	999.86	1.44	8.07	9.53	1750886.38	428463.09	39°40'25.6221"N	80°16'23.2615"W	12.49	49.744	1.94
1050.00	0.860	27.830	1049.85	1.57	8.88	10.51	1750887.36	428463.90	39°40'25.6301"N	80°16'23.2491"W	13.76	49.803	2.95
1100.00	0.570	151.130	1099.84	1.51	8.99	10.81	1750887.65	428464.01	39°40'25.6313"N	80°16'23.2454"W	14.06	50.225	2.53
1125.00	0.570	133.780	1124.84	1.26	8.80	10.96	1750887.80	428463.82	39°40'25.6294"N	80°16'23.2434"W	14.05	51.226	0.69
1404.00	0.550	324.800	1403.84	1.24	8.93	11.19	1750888.03	428463.95	39°40'25.6307"N	80°16'23.2405"W	14.32	51.385	0.40
1500.00	0.350	59.880	1499.84	1.69	9.46	11.17	1750888.02	428464.48	39°40'25.6359"N	80°16'23.2407"W	14.64	49.754	0.71
1595.00	1.450	93.520	1594.82	0.94	9.53	12.62	1750889.47	428464.55	39°40'25.6367"N	80°16'23.2222"W	15.82	52.952	1.24
1691.00	3.690	93.460	1690.72	-1.65	9.27	16.92	1750893.77	428464.29	39°40'25.6345"N	80°16'23.1672"W	19.29	61.288	2.33
1787.00	6.210	87.020	1786.36	-6.16	9.35	25.19	1750902.04	428464.37	39°40'25.6361"N	80°16'23.0614"W	26.87	69.633	2.68

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Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
1883.00	8.210	83.830	1881.59	-11.97	10.36	37.19	1750914.04	428465.38	39°40'25.6470"N	80°16'22.9081"W	38.61	74.437	2.12
1978.00	10.560	86.040	1975.31	-19.41	11.69	52.62	1750929.47	428466.71	39°40'25.6615"N	80°16'22.7109"W	53.90	77.476	2.50
2074.00	13.310	89.100	2069.23	-29.74	12.47	72.45	1750949.30	428467.49	39°40'25.6709"N	80°16'22.4574"W	73.52	80.234	2.94
2170.00	15.620	87.480	2162.18	-42.40	13.21	96.42	1750973.26	428468.23	39°40'25.6803"N	80°16'22.1510"W	97.32	82.197	2.44
2265.00	16.530	90.650	2253.47	-56.62	13.62	122.71	1750999.55	428468.64	39°40'25.6865"N	80°16'21.8148"W	123.46	83.666	1.33
2361.00	17.650	94.170	2345.23	-73.23	12.41	150.88	1751027.72	428467.43	39°40'25.6769"N	80°16'21.4544"W	151.39	85.299	1.59
2457.00	19.160	95.380	2436.32	-92.07	9.87	181.08	1751057.92	428464.89	39°40'25.6544"N	80°16'21.0679"W	181.35	86.879	1.62
2552.00	18.050	94.710	2526.35	-111.01	7.20	211.27	1751088.11	428462.22	39°40'25.6306"N	80°16'20.6815"W	211.39	88.048	1.19
2659.00	17.440	91.420	2628.26	-130.50	5.44	243.82	1751120.66	428460.46	39°40'25.6160"N	80°16'20.2650"W	243.88	88.721	1.10
2754.00	18.560	86.110	2718.62	-146.18	6.12	273.14	1751149.98	428461.14	39°40'25.6252"N	80°16'19.8902"W	273.21	88.717	2.09
2849.00	18.530	85.730	2808.69	-161.08	8.27	303.28	1751180.11	428463.29	39°40'25.6490"N	80°16'19.5050"W	303.39	88.439	0.13
2945.00	18.430	87.060	2899.74	-176.31	10.18	333.65	1751210.48	428465.20	39°40'25.6705"N	80°16'19.1168"W	333.80	88.252	0.45
3040.00	18.510	89.150	2989.84	-192.14	11.17	363.72	1751240.55	428466.19	39°40'25.6828"N	80°16'18.7323"W	363.89	88.240	0.70
3136.00	18.740	89.240	3080.82	-208.76	11.60	394.38	1751271.21	428466.62	39°40'25.6897"N	80°16'18.3403"W	394.55	88.315	0.24
3230.00	19.800	88.900	3169.55	-225.51	12.11	425.40	1751302.22	428467.13	39°40'25.6973"N	80°16'17.9437"W	425.57	88.369	1.13
3323.00	21.170	87.500	3256.67	-242.67	13.15	457.92	1751334.75	428468.16	39°40'25.7103"N	80°16'17.5278"W	458.11	88.356	1.56
3419.00	22.990	84.300	3345.62	-260.41	15.76	493.90	1751370.72	428470.78	39°40'25.7392"N	80°16'17.0680"W	494.15	88.172	2.27
3518.00	23.480	80.040	3436.60	-277.39	21.10	532.57	1751409.38	428476.11	39°40'25.7952"N	80°16'16.5741"W	532.98	87.732	1.77
3614.00	23.980	77.290	3524.49	-292.03	28.70	570.43	1751447.25	428483.71	39°40'25.8735"N	80°16'16.0907"W	571.16	87.120	1.26
3710.00	25.050	76.200	3611.83	-305.89	37.84	609.20	1751486.02	428492.85	39°40'25.9671"N	80°16'15.5959"W	610.38	86.446	1.21
3806.00	26.520	76.780	3698.27	-320.26	47.59	649.81	1751526.62	428502.60	39°40'26.0669"N	80°16'15.0777"W	651.55	85.812	1.55
3898.00	28.940	77.130	3779.70	-335.31	57.24	691.51	1751568.32	428512.26	39°40'26.1659"N	80°16'14.5455"W	693.87	85.268	2.64
3993.00	32.190	77.120	3861.49	-352.43	68.01	738.60	1751615.40	428523.02	39°40'26.2763"N	80°16'13.9445"W	741.72	84.739	3.42
4089.00	34.170	78.360	3941.83	-371.59	79.15	789.93	1751666.74	428534.16	39°40'26.3907"N	80°16'13.2892"W	793.89	84.278	2.18
4185.00	35.590	79.520	4020.59	-392.67	89.67	843.81	1751720.61	428544.68	39°40'26.4993"N	80°16'12.6013"W	848.56	83.934	1.63
4280.00	37.410	81.660	4096.95	-415.86	98.88	899.55	1751776.35	428553.90	39°40'26.5951"N	80°16'11.8895"W	904.97	83.727	2.34
4376.00	38.740	81.340	4172.52	-441.00	107.64	958.10	1751834.90	428562.65	39°40'26.6865"N	80°16'11.1416"W	964.13	83.590	1.40
4472.00	38.660	79.000	4247.45	-465.22	117.88	1017.24	1751894.02	428572.89	39°40'26.7928"N	80°16'10.3865"W	1024.04	83.390	1.53
4571.00	38.470	78.600	4324.86	-488.77	129.87	1077.78	1751954.56	428584.88	39°40'26.9163"N	80°16'9.6136"W	1085.57	83.129	0.32
4667.00	38.030	79.580	4400.25	-511.72	141.12	1136.13	1752012.92	428596.13	39°40'27.0325"N	80°16'8.8685"W	1144.86	82.920	0.78

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4762.00	38.120	80.270	4475.03	-535.14	151.37	1193.82	1752070.59	428606.38	39°40'27.1386"N	80°16'8.1320"W	1203.37	82.774	0.46
4856.00	37.640	82.310	4549.23	-559.45	160.11	1250.86	1752127.63	428615.12	39°40'27.2299"N	80°16'7.4035"W	1261.07	82.706	1.43
4952.00	37.030	80.980	4625.56	-584.31	168.57	1308.46	1752185.23	428623.58	39°40'27.3183"N	80°16'6.6677"W	1319.27	82.659	1.05
5048.00	37.330	79.230	4702.05	-607.65	178.54	1365.61	1752242.37	428633.55	39°40'27.4217"N	80°16'5.9380"W	1377.23	82.551	1.15
5143.00	37.160	79.280	4777.67	-630.01	189.26	1422.10	1752298.86	428644.27	39°40'27.5324"N	80°16'5.2168"W	1434.63	82.419	0.18
5243.00	38.200	81.370	4856.82	-654.84	199.52	1482.34	1752359.10	428654.52	39°40'27.6389"N	80°16'4.4474"W	1495.71	82.334	1.65
5338.00	37.700	82.630	4931.73	-680.11	207.65	1540.20	1752416.95	428662.66	39°40'27.7241"N	80°16'3.7084"W	1554.13	82.322	0.97
5434.00	36.800	81.400	5008.15	-705.26	215.71	1597.74	1752474.49	428670.72	39°40'27.8087"N	80°16'2.9734"W	1612.23	82.311	1.22
5530.00	36.470	81.230	5085.18	-729.42	224.36	1654.37	1752531.11	428679.37	39°40'27.8990"N	80°16'2.2502"W	1669.51	82.277	0.36
5625.00	37.070	79.070	5161.29	-752.34	234.10	1710.39	1752587.13	428689.10	39°40'27.9999"N	80°16'1.5348"W	1726.33	82.206	1.50
5721.00	37.970	79.650	5237.43	-775.18	244.89	1767.85	1752644.59	428699.90	39°40'28.1114"N	80°16'0.8012"W	1784.73	82.113	1.01
5816.00	37.190	78.670	5312.71	-797.62	255.78	1824.75	1752701.49	428710.79	39°40'28.2238"N	80°16'0.0746"W	1842.59	82.021	1.03
5912.00	36.270	79.000	5389.65	-819.56	266.90	1881.07	1752757.81	428721.90	39°40'28.3384"N	80°15'59.3555"W	1899.92	81.924	0.98
6008.00	37.980	81.000	5466.20	-842.80	276.94	1938.13	1752814.86	428731.94	39°40'28.4425"N	80°15'58.6270"W	1957.82	81.868	2.18
6106.00	39.090	81.880	5542.85	-868.67	286.02	1998.50	1752875.23	428741.03	39°40'28.5373"N	80°15'57.8559"W	2018.87	81.855	1.26
6202.00	39.780	81.200	5617.00	-894.61	295.00	2058.82	1752935.54	428750.00	39°40'28.6311"N	80°15'57.0855"W	2079.84	81.846	0.85
6297.00	40.080	81.690	5689.85	-920.45	304.07	2119.11	1752995.83	428759.07	39°40'28.7258"N	80°15'56.3154"W	2140.82	81.835	0.46
6392.00	39.210	81.720	5763.00	-946.38	312.81	2179.09	1753055.81	428767.81	39°40'28.8173"N	80°15'55.5493"W	2201.43	81.831	0.92
6488.00	38.560	81.870	5837.73	-972.26	321.41	2238.74	1753115.45	428776.41	39°40'28.9073"N	80°15'54.7874"W	2261.69	81.830	0.68
6583.00	38.470	81.480	5912.06	-997.54	329.98	2297.27	1753173.98	428784.98	39°40'28.9969"N	80°15'54.0398"W	2320.85	81.826	0.27
6679.00	38.190	83.190	5987.37	-1023.61	337.92	2356.27	1753232.98	428792.92	39°40'29.0803"N	80°15'53.2861"W	2380.38	81.839	1.14
6775.00	37.680	82.350	6063.08	-1049.85	345.35	2414.82	1753291.53	428800.34	39°40'29.1586"N	80°15'52.5382"W	2439.39	81.861	0.76
6874.00	37.790	80.800	6141.38	-1075.65	354.22	2474.75	1753351.45	428809.22	39°40'29.2514"N	80°15'51.7727"W	2499.98	81.854	0.96
6970.00	36.430	79.440	6217.94	-1098.99	364.15	2531.81	1753408.51	428819.15	39°40'29.3543"N	80°15'51.0440"W	2557.87	81.815	1.65
7065.00	35.310	78.060	6294.92	-1120.19	375.00	2586.41	1753463.10	428830.00	39°40'29.4661"N	80°15'50.3470"W	2613.45	81.750	1.45
7160.00	35.910	81.700	6372.16	-1142.26	384.70	2640.84	1753517.53	428839.70	39°40'29.5666"N	80°15'49.6519"W	2668.72	81.712	2.32
7255.00	35.290	84.030	6449.41	-1166.91	391.58	2695.70	1753572.39	428846.58	39°40'29.6391"N	80°15'48.9511"W	2724.00	81.735	1.57
7351.00	36.130	82.610	6527.36	-1192.30	398.10	2751.35	1753628.04	428853.10	39°40'29.7083"N	80°15'48.2401"W	2780.01	81.767	1.23
7446.00	37.130	80.550	6603.60	-1216.43	406.41	2807.41	1753684.09	428861.41	39°40'29.7951"N	80°15'47.5240"W	2836.68	81.763	1.67
7541.00	37.280	80.730	6679.27	-1240.04	415.76	2864.09	1753740.77	428870.75	39°40'29.8922"N	80°15'46.8002"W	2894.11	81.741	0.20

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Actual Wellpath Report

ERP 15H awp Proj: 25140'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
7640.00	38.170	79.570	6757.57	-1264.46	426.12	2923.77	1753800.44	428881.12	39°40'29.9997"N	80°15'46.0381"W	2954.66	81.708	1.15
7735.00	38.660	80.060	6832.01	-1287.95	436.56	2981.87	1753858.54	428891.55	39°40'30.1077"N	80°15'45.2963"W	3013.66	81.671	0.61
7830.00	37.580	79.770	6906.75	-1311.37	446.83	3039.61	1753916.27	428901.82	39°40'30.2140"N	80°15'44.5590"W	3072.27	81.637	1.15
7925.00	38.210	79.900	6981.71	-1334.61	457.13	3097.04	1753973.70	428912.12	39°40'30.3206"N	80°15'43.8256"W	3130.60	81.604	0.67
8021.00	39.690	78.950	7056.37	-1358.23	468.21	3156.36	1754033.02	428923.20	39°40'30.4351"N	80°15'43.0682"W	3190.90	81.562	1.66
8116.00	38.920	76.580	7129.88	-1380.19	480.95	3215.16	1754091.82	428935.94	39°40'30.5659"N	80°15'42.3175"W	3250.94	81.492	1.78
8211.00	37.040	74.140	7204.77	-1399.24	495.70	3271.72	1754148.37	428950.69	39°40'30.7164"N	80°15'41.5958"W	3309.06	81.385	2.53
8318.00	34.810	78.680	7291.42	-1420.67	510.50	3332.69	1754209.34	428965.49	39°40'30.8678"N	80°15'40.8177"W	3371.56	81.291	3.25
8414.00	32.790	78.860	7371.19	-1441.02	520.91	3385.07	1754261.71	428975.89	39°40'30.9750"N	80°15'40.1490"W	3424.91	81.252	2.11
8509.00	37.390	65.190	7449.03	-1455.31	538.01	3436.60	1754313.24	428993.00	39°40'31.1484"N	80°15'39.4919"W	3478.46	81.102	9.56
8604.00	37.330	49.210	7524.72	-1456.15	569.01	3484.70	1754361.34	429023.99	39°40'31.4587"N	80°15'38.8800"W	3530.85	80.726	10.19
8700.00	37.380	43.560	7601.05	-1446.06	609.15	3526.83	1754403.47	429064.14	39°40'31.8590"N	80°15'38.3456"W	3579.05	80.201	3.57
8795.00	38.660	30.440	7676.01	-1426.65	655.71	3561.80	1754438.43	429110.69	39°40'32.3220"N	80°15'37.9034"W	3621.65	79.569	8.60
8890.00	42.340	17.160	7748.38	-1393.38	711.99	3586.32	1754462.96	429166.97	39°40'32.8803"N	80°15'37.5959"W	3656.32	78.771	9.85
8986.00	46.880	7.720	7816.78	-1346.57	777.71	3600.59	1754477.22	429232.68	39°40'33.5309"N	80°15'37.4205"W	3683.62	77.812	8.36
9081.00	52.070	0.680	7878.53	-1289.51	849.63	3605.70	1754482.33	429304.60	39°40'34.2421"N	80°15'37.3629"W	3704.45	76.741	7.84
9176.00	57.580	353.520	7933.28	-1222.78	927.06	3601.61	1754478.24	429382.02	39°40'35.0070"N	80°15'37.4236"W	3719.01	75.565	8.46
9271.00	60.750	345.620	7982.03	-1147.86	1007.16	3586.78	1754463.41	429462.12	39°40'35.7973"N	80°15'37.6220"W	3725.50	74.315	7.88
9366.00	68.370	342.920	8022.81	-1066.28	1089.64	3563.48	1754440.11	429544.60	39°40'36.6105"N	80°15'37.9289"W	3726.35	72.997	8.42
9462.00	73.960	339.180	8053.80	-978.43	1175.51	3533.94	1754410.58	429630.46	39°40'37.4566"N	80°15'38.3160"W	3724.32	71.601	6.89
9558.00	79.130	334.840	8076.14	-886.72	1261.39	3497.46	1754374.10	429716.34	39°40'38.3023"N	80°15'38.7918"W	3717.98	70.168	6.95
9653.00	83.370	330.220	8090.60	-793.41	1344.65	3454.15	1754330.79	429799.59	39°40'39.1215"N	80°15'39.3547"W	3706.65	68.730	6.56
9748.00	84.050	327.560	8101.01	-699.08	1425.49	3405.37	1754282.01	429880.42	39°40'39.9163"N	80°15'39.9874"W	3691.69	67.286	2.87
9844.00	89.380	327.080	8106.51	-603.29	1506.13	3353.64	1754230.28	429961.06	39°40'40.7089"N	80°15'40.6577"W	3676.32	65.815	5.57
9939.00	89.510	325.620	8107.43	-508.29	1585.20	3301.00	1754177.65	430040.13	39°40'41.4859"N	80°15'41.3395"W	3661.89	64.349	1.54
10034.00	89.050	326.810	8108.62	-413.30	1664.15	3248.18	1754124.83	430119.07	39°40'42.2617"N	80°15'42.0236"W	3649.67	62.872	1.34
10129.00	89.290	327.320	8110.00	-318.32	1743.88	3196.53	1754073.19	430198.79	39°40'43.0453"N	80°15'42.6928"W	3641.28	61.385	0.59
10225.00	88.710	327.010	8111.67	-222.34	1824.53	3144.49	1754021.15	430279.44	39°40'43.8379"N	80°15'43.3672"W	3635.48	59.876	0.69
10320.00	88.890	326.510	8113.66	-127.37	1903.97	3092.42	1753969.09	430358.87	39°40'44.6186"N	80°15'44.0416"W	3631.55	58.380	0.56
10415.00	88.860	325.820	8115.53	-32.39	1982.86	3039.54	1753916.20	430437.76	39°40'45.3939"N	80°15'44.7266"W	3629.12	56.881	0.73

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Actual Wellpath Report

ERP 15H awp Proj: 25140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
10510.00	88.610	326.320	8117.63	62.59	2061.67	2986.52	1753863.19	430516.56	39°40'46.1682"N	80°15'45.4132"W	3629.02	55.382	0.59
10606.00	89.140	326.650	8119.51	158.57	2141.69	2933.53	1753810.20	430596.58	39°40'46.9546"N	80°15'46.0996"W	3632.14	53.868	0.65
10701.00	88.920	325.460	8121.12	253.55	2220.49	2880.49	1753757.16	430675.37	39°40'47.7288"N	80°15'46.7866"W	3637.00	52.372	1.27
10796.00	89.170	326.120	8122.70	348.53	2299.04	2827.09	1753703.76	430753.92	39°40'48.5007"N	80°15'47.4781"W	3643.90	50.881	0.74
10892.00	89.200	325.910	8124.07	444.52	2378.63	2773.43	1753650.11	430833.51	39°40'49.2827"N	80°15'48.1730"W	3653.74	49.382	0.22
10987.00	88.240	325.740	8126.19	539.49	2457.21	2720.08	1753596.76	430912.08	39°40'50.0548"N	80°15'48.8639"W	3665.61	47.907	1.03
11082.00	88.740	326.320	8128.69	634.46	2535.96	2667.02	1753543.70	430990.83	39°40'50.8287"N	80°15'49.5511"W	3680.23	46.443	0.81
11178.00	88.270	326.140	8131.20	730.42	2615.74	2613.67	1753490.36	431070.60	39°40'51.6125"N	80°15'50.2420"W	3697.75	44.977	0.52
11273.00	88.310	326.030	8134.03	825.38	2694.54	2560.69	1753437.38	431149.40	39°40'52.3869"N	80°15'50.9283"W	3717.21	43.541	0.12
11368.00	89.450	326.120	8135.89	920.36	2773.35	2507.68	1753384.38	431228.20	39°40'53.1613"N	80°15'51.6148"W	3738.98	42.120	1.20
11464.00	89.080	325.780	8137.12	1016.35	2852.89	2453.93	1753330.63	431307.73	39°40'53.9427"N	80°15'52.3109"W	3763.08	40.701	0.52
11558.00	88.860	326.160	8138.81	1110.33	2930.78	2401.34	1753278.04	431385.62	39°40'54.7080"N	80°15'52.9921"W	3788.91	39.330	0.47
11653.00	88.890	326.060	8140.68	1205.31	3009.62	2348.37	1753225.08	431464.46	39°40'55.4828"N	80°15'53.6780"W	3817.42	37.965	0.11
11749.00	89.510	326.780	8142.02	1301.30	3089.59	2295.28	1753171.99	431544.42	39°40'56.2686"N	80°15'54.3658"W	3848.88	36.609	0.99
11844.00	89.850	326.110	8142.55	1396.30	3168.76	2242.77	1753119.49	431623.59	39°40'57.0466"N	80°15'55.0460"W	3882.15	35.290	0.79
11939.00	89.940	326.610	8142.72	1491.30	3247.85	2190.15	1753066.86	431702.67	39°40'57.8237"N	80°15'55.7278"W	3917.30	33.993	0.53
12034.00	89.780	326.260	8142.95	1586.30	3327.01	2137.62	1753014.34	431781.83	39°40'58.6016"N	80°15'56.4082"W	3954.54	32.721	0.41
12130.00	89.940	325.700	8143.19	1682.29	3406.58	2083.91	1752960.64	431861.39	39°40'59.3834"N	80°15'57.1038"W	3993.43	31.455	0.61
12223.00	89.780	326.470	8143.42	1775.29	3483.75	2032.02	1752908.75	431938.56	39°41'0.1418"N	80°15'57.7759"W	4033.07	30.254	0.85
12318.00	89.910	326.550	8143.67	1870.29	3562.98	1979.60	1752856.33	432017.78	39°41'0.9203"N	80°15'58.4550"W	4075.99	29.057	0.16
12413.00	90.990	326.080	8142.93	1965.29	3642.03	1926.92	1752803.65	432096.83	39°41'1.6970"N	80°15'59.1375"W	4120.36	27.882	1.24
12508.00	90.520	326.130	8141.67	2060.28	3720.88	1873.94	1752750.68	432175.67	39°41'2.4718"N	80°15'59.8237"W	4166.12	26.731	0.50
12604.00	90.460	325.340	8140.85	2156.27	3800.21	1819.89	1752696.63	432255.00	39°41'3.2513"N	80°16'0.5236"W	4213.50	25.589	0.83
12699.00	91.050	325.980	8139.60	2251.25	3878.65	1766.31	1752643.05	432333.43	39°41'4.0219"N	80°16'1.2176"W	4261.89	24.484	0.92
12794.00	90.370	325.240	8138.42	2346.23	3957.03	1712.66	1752589.40	432411.81	39°41'4.7920"N	80°16'1.9124"W	4311.76	23.404	1.06
12890.00	90.680	326.620	8137.54	2442.22	4036.55	1658.88	1752535.63	432491.32	39°41'5.5733"N	80°16'2.6089"W	4364.13	22.341	1.47
12985.00	91.110	326.880	8136.06	2537.21	4115.99	1606.80	1752483.55	432570.76	39°41'6.3539"N	80°16'3.2837"W	4418.50	21.325	0.53
13080.00	91.760	326.010	8133.68	2632.18	4195.13	1554.31	1752431.06	432649.89	39°41'7.1316"N	80°16'3.9638"W	4473.81	20.330	1.14
13176.00	91.540	324.950	8130.92	2728.13	4274.19	1499.93	1752376.69	432728.95	39°41'7.9084"N	80°16'4.6680"W	4529.74	19.337	1.13
13271.00	91.630	326.160	8128.29	2823.08	4352.51	1446.22	1752322.98	432807.26	39°41'8.6778"N	80°16'5.3636"W	4586.48	18.380	1.28

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Actual Wellpath Report

ERP 15H awp Proj: 25140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
13367.00	92.030	325.980	8125.22	2919.03	4432.12	1392.66	1752269.42	432886.87	39°41'9.4600"N	80°16'6.0573"W	4645.77	17.444	0.46
13462.00	92.000	326.100	8121.88	3013.97	4510.86	1339.62	1752216.39	432965.61	39°41'10.2337"N	80°16'6.7443"W	4705.58	16.540	0.13
13557.00	91.820	326.360	8118.72	3108.91	4589.79	1286.84	1752163.62	433044.53	39°41'11.0093"N	80°16'7.4280"W	4766.78	15.662	0.33
13652.00	92.100	326.020	8115.47	3203.86	4668.68	1234.01	1752110.79	433123.42	39°41'11.7844"N	80°16'8.1124"W	4829.01	14.806	0.46
13748.00	92.280	326.170	8111.80	3299.79	4748.30	1180.50	1752057.28	433203.03	39°41'12.5667"N	80°16'8.8056"W	4892.84	13.962	0.24
13843.00	92.590	325.710	8107.76	3394.70	4826.93	1127.35	1752004.13	433281.66	39°41'13.3393"N	80°16'9.4941"W	4956.83	13.146	0.58
13939.00	92.960	326.600	8103.12	3490.58	4906.57	1073.94	1751950.73	433361.29	39°41'14.1218"N	80°16'10.1859"W	5022.72	12.346	1.00
14034.00	93.540	326.920	8097.73	3585.43	4985.90	1021.95	1751898.74	433440.61	39°41'14.9013"N	80°16'10.8596"W	5089.55	11.583	0.70
14129.00	93.170	325.980	8092.17	3680.26	5064.93	969.54	1751846.33	433519.64	39°41'15.6780"N	80°16'11.5387"W	5156.89	10.837	1.06
14222.00	93.790	325.690	8086.52	3773.09	5141.74	917.41	1751794.20	433596.45	39°41'16.4326"N	80°16'12.2139"W	5222.94	10.116	0.74
14318.00	94.160	325.840	8079.87	3868.85	5220.92	863.53	1751740.33	433675.62	39°41'17.2105"N	80°16'12.9118"W	5291.85	9.392	0.42
14413.00	95.150	325.870	8072.16	3963.53	5299.28	810.38	1751687.18	433753.98	39°41'17.9804"N	80°16'13.6002"W	5360.88	8.695	1.04
14509.00	95.060	326.460	8063.62	4059.15	5378.70	757.14	1751633.95	433833.40	39°41'18.7608"N	80°16'14.2899"W	5431.73	8.013	0.62
14605.00	95.370	326.110	8054.89	4154.75	5458.23	704.08	1751580.89	433912.92	39°41'19.5422"N	80°16'14.9774"W	5503.45	7.350	0.49
14700.00	95.030	326.160	8046.28	4249.36	5536.79	651.36	1751528.17	433991.47	39°41'20.3141"N	80°16'15.6604"W	5574.97	6.710	0.36
14796.00	95.030	325.780	8037.87	4344.99	5616.04	597.84	1751474.65	434070.72	39°41'21.0928"N	80°16'16.3536"W	5647.77	6.076	0.39
14892.00	94.100	325.730	8030.22	4440.68	5695.14	543.99	1751420.81	434149.82	39°41'21.8700"N	80°16'17.0511"W	5721.07	5.456	0.97
14987.00	91.730	324.920	8025.39	4535.53	5773.16	490.02	1751366.84	434227.83	39°41'22.6364"N	80°16'17.7501"W	5793.92	4.852	2.64
15083.00	91.600	326.430	8022.60	4631.48	5852.41	435.91	1751312.73	434307.07	39°41'23.4150"N	80°16'18.4509"W	5868.62	4.260	1.58
15179.00	91.140	326.860	8020.31	4727.45	5932.57	383.14	1751259.97	434387.23	39°41'24.2027"N	80°16'19.1347"W	5944.93	3.695	0.66
15275.00	89.850	325.570	8019.48	4823.44	6012.36	329.76	1751206.59	434467.01	39°41'24.9866"N	80°16'19.8263"W	6021.39	3.139	1.90
15370.00	89.110	326.010	8020.34	4918.44	6090.91	276.35	1751153.19	434545.56	39°41'25.7584"N	80°16'20.5181"W	6097.18	2.598	0.91
15466.00	89.600	325.890	8021.42	5014.43	6170.45	222.60	1751099.44	434625.09	39°41'26.5399"N	80°16'21.2144"W	6174.46	2.066	0.53
15561.00	90.120	325.840	8021.65	5109.42	6249.08	169.30	1751046.14	434703.72	39°41'27.3124"N	80°16'21.9050"W	6251.38	1.552	0.55
15657.00	90.310	327.630	8021.29	5205.42	6329.35	116.64	1750993.48	434783.98	39°41'28.1012"N	80°16'22.5873"W	6330.42	1.056	1.88
15752.00	89.750	327.380	8021.24	5300.40	6409.47	65.60	1750942.45	434864.10	39°41'28.8887"N	80°16'23.2490"W	6409.81	0.586	0.65
15847.00	89.940	326.580	8021.50	5395.39	6489.13	13.84	1750890.69	434943.75	39°41'29.6715"N	80°16'23.9200"W	6489.14	0.122	0.87
15942.00	90.120	326.500	8021.45	5490.39	6568.39	-38.54	1750838.31	435023.01	39°41'30.4503"N	80°16'24.5987"W	6568.50	359.664	0.21
16038.00	89.480	327.560	8021.79	5586.38	6648.92	-90.78	1750786.07	435103.54	39°41'31.2417"N	80°16'25.2759"W	6649.54	359.218	1.29
16134.00	89.690	327.430	8022.48	5682.36	6729.88	-142.37	1750734.49	435184.49	39°41'32.0374"N	80°16'25.9447"W	6731.39	358.788	0.26

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Actual Wellpath Report

ERP 15H awp Proj: 25140'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
16229.00	89.940	326.920	8022.79	5777.35	6809.71	-193.87	1750683.00	435264.32	39°41'32.8219"N	80°16'26.6122"W	6812.47	358.369	0.60
16325.00	89.850	325.980	8022.96	5873.35	6889.72	-246.92	1750629.94	435344.32	39°41'33.6081"N	80°16'27.2997"W	6894.14	357.947	0.98
16421.00	89.970	327.350	8023.12	5969.34	6969.92	-299.68	1750577.19	435424.52	39°41'34.3962"N	80°16'27.9834"W	6976.36	357.538	1.43
16516.00	90.000	326.990	8023.14	6064.33	7049.75	-351.18	1750525.69	435504.34	39°41'35.1807"N	80°16'28.6510"W	7058.49	357.148	0.38
16612.00	89.660	325.980	8023.43	6160.33	7129.79	-404.19	1750472.69	435584.37	39°41'35.9671"N	80°16'29.3379"W	7141.23	356.755	1.11
16707.00	89.660	326.200	8023.99	6255.33	7208.63	-457.18	1750419.69	435663.21	39°41'36.7418"N	80°16'30.0246"W	7223.11	356.371	0.23
16803.00	89.750	327.550	8024.48	6351.32	7289.02	-509.64	1750367.24	435743.60	39°41'37.5318"N	80°16'30.7045"W	7306.82	356.000	1.41
16898.00	89.690	326.520	8024.95	6446.31	7368.72	-561.33	1750315.55	435823.30	39°41'38.3151"N	80°16'31.3745"W	7390.07	355.644	1.09
16994.00	89.630	326.910	8025.52	6542.31	7448.97	-614.02	1750262.87	435903.54	39°41'39.1036"N	80°16'32.0574"W	7474.24	355.288	0.41
17089.00	89.480	326.690	8026.26	6637.30	7528.46	-666.03	1750210.86	435983.03	39°41'39.8847"N	80°16'32.7316"W	7557.87	354.944	0.28
17184.00	89.450	326.660	8027.14	6732.30	7607.84	-718.22	1750158.67	436062.40	39°41'40.6647"N	80°16'33.4079"W	7641.67	354.607	0.04
17280.00	89.230	326.910	8028.25	6828.29	7688.15	-770.81	1750106.09	436142.70	39°41'41.4539"N	80°16'34.0895"W	7726.69	354.275	0.35
17375.00	89.200	327.090	8029.55	6923.28	7767.82	-822.54	1750054.36	436222.36	39°41'42.2368"N	80°16'34.7601"W	7811.25	353.955	0.19
17471.00	89.820	326.950	8030.37	7019.26	7848.34	-874.80	1750002.10	436302.89	39°41'43.0281"N	80°16'35.4375"W	7896.95	353.640	0.66
17566.00	90.250	326.920	8030.31	7114.26	7927.96	-926.63	1749950.28	436382.50	39°41'43.8105"N	80°16'36.1093"W	7981.93	353.333	0.45
17661.00	89.780	326.250	8030.29	7209.26	8007.25	-978.95	1749897.96	436461.79	39°41'44.5897"N	80°16'36.7874"W	8066.87	353.030	0.86
17757.00	89.410	326.370	8030.97	7305.26	8087.13	-1032.20	1749844.72	436541.66	39°41'45.3745"N	80°16'37.4774"W	8152.74	352.726	0.41
17853.00	89.420	327.110	8031.95	7401.25	8167.40	-1084.84	1749792.07	436621.92	39°41'46.1632"N	80°16'38.1598"W	8239.13	352.434	0.77
17948.00	89.420	327.220	8032.91	7496.23	8247.22	-1136.35	1749740.57	436701.73	39°41'46.9476"N	80°16'38.8276"W	8325.14	352.155	0.12
18044.00	89.970	327.310	8033.42	7592.22	8327.97	-1188.26	1749688.66	436782.48	39°41'47.7412"N	80°16'39.5006"W	8412.31	351.880	0.58
18139.00	89.690	326.050	8033.70	7687.22	8407.35	-1240.45	1749636.48	436861.86	39°41'48.5212"N	80°16'40.1769"W	8498.37	351.607	1.36
18234.00	89.630	326.690	8034.26	7782.21	8486.45	-1293.06	1749583.87	436940.95	39°41'49.2984"N	80°16'40.8588"W	8584.39	351.337	0.68
18329.00	89.780	327.020	8034.75	7877.21	8565.99	-1345.00	1749531.93	437020.49	39°41'50.0800"N	80°16'41.5321"W	8670.94	351.076	0.38
18424.00	89.630	327.030	8035.24	7972.20	8645.69	-1396.71	1749480.23	437100.18	39°41'50.8632"N	80°16'42.2023"W	8757.78	350.823	0.16
18519.00	89.780	325.970	8035.73	8067.20	8724.90	-1449.14	1749427.80	437179.39	39°41'51.6416"N	80°16'42.8819"W	8844.43	350.570	1.13
18614.00	89.910	325.840	8035.99	8162.20	8803.57	-1502.39	1749374.55	437258.06	39°41'52.4144"N	80°16'43.5719"W	8930.85	350.315	0.19
18710.00	89.690	325.330	8036.32	8258.19	8882.77	-1556.65	1749320.30	437337.25	39°41'53.1924"N	80°16'44.2748"W	9018.13	350.060	0.58
18805.00	90.280	326.310	8036.35	8353.18	8961.36	-1610.02	1749266.93	437415.83	39°41'53.9645"N	80°16'44.9663"W	9104.84	349.815	1.20
18900.00	89.320	325.620	8036.68	8448.18	9040.08	-1663.19	1749213.76	437494.55	39°41'54.7380"N	80°16'45.6552"W	9191.81	349.575	1.24
18995.00	89.880	325.700	8037.34	8543.17	9118.52	-1716.78	1749160.18	437572.99	39°41'55.5085"N	80°16'46.3495"W	9278.73	349.338	0.60

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Actual Wellpath Report

ERP 15H awp Proj: 25140'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
19091.00	89.540	325.570	8037.83	8639.16	9197.76	-1770.96	1749105.99	437652.22	39°41'56.2870"N	80°16'47.0515"W	9366.71	349.101	0.38
19186.00	89.110	325.730	8038.95	8734.14	9276.19	-1824.56	1749052.40	437730.65	39°41'57.0575"N	80°16'47.7459"W	9453.93	348.872	0.48
19281.00	89.510	326.080	8040.09	8829.13	9354.86	-1877.81	1748999.15	437809.31	39°41'57.8303"N	80°16'48.4359"W	9541.46	348.650	0.56
19376.00	90.030	325.890	8040.47	8924.13	9433.60	-1930.96	1748946.01	437888.05	39°41'58.6039"N	80°16'49.1245"W	9629.20	348.432	0.58
19472.00	90.220	326.230	8040.27	9020.13	9513.24	-1984.56	1748892.42	437967.68	39°41'59.3864"N	80°16'49.8191"W	9718.04	348.217	0.41
19566.00	90.000	326.590	8040.08	9114.13	9591.55	-2036.56	1748840.41	438045.98	39°42'0.1558"N	80°16'50.4931"W	9805.37	348.012	0.45
19661.00	89.690	325.970	8040.34	9209.13	9670.56	-2089.30	1748787.68	438124.99	39°42'0.9321"N	80°16'51.1766"W	9893.68	347.809	0.73
19757.00	90.220	326.350	8040.42	9305.12	9750.30	-2142.76	1748734.22	438204.73	39°42'1.7155"N	80°16'51.8694"W	9982.97	347.606	0.68
19852.00	90.060	325.750	8040.18	9400.12	9829.10	-2195.81	1748681.17	438283.53	39°42'2.4897"N	80°16'52.5569"W	10071.39	347.407	0.65
19948.00	90.650	326.120	8039.59	9496.12	9908.63	-2249.58	1748627.40	438363.05	39°42'3.2710"N	80°16'53.2536"W	10160.78	347.209	0.73
20043.00	90.550	326.070	8038.60	9591.11	9987.47	-2302.57	1748574.42	438441.88	39°42'4.0456"N	80°16'53.9403"W	10249.46	347.018	0.12
20138.00	90.550	325.700	8037.68	9686.10	10066.12	-2355.85	1748521.14	438520.53	39°42'4.8182"N	80°16'54.6307"W	10338.12	346.828	0.39
20233.00	90.180	326.480	8037.08	9781.10	10144.96	-2408.85	1748468.15	438599.36	39°42'5.5928"N	80°16'55.3175"W	10427.02	346.643	0.91
20329.00	90.280	326.140	8036.69	9877.10	10224.83	-2462.10	1748414.90	438679.23	39°42'6.3776"N	80°16'56.0077"W	10517.09	346.461	0.37
20424.00	90.000	324.810	8036.46	9972.08	10303.10	-2515.94	1748361.06	438757.49	39°42'7.1464"N	80°16'56.7053"W	10605.84	346.277	1.43
20519.00	89.660	325.190	8036.74	10067.06	10380.92	-2570.43	1748306.58	438835.31	39°42'7.9108"N	80°16'57.4110"W	10694.42	346.093	0.54
20614.00	89.170	326.280	8037.71	10162.04	10459.43	-2623.91	1748253.10	438913.81	39°42'8.6820"N	80°16'58.1040"W	10783.53	345.917	1.26
20709.00	88.950	325.870	8039.27	10257.03	10538.24	-2676.93	1748200.09	438992.62	39°42'9.4564"N	80°16'58.7911"W	10872.93	345.747	0.49
20804.00	90.250	326.070	8039.93	10352.02	10616.97	-2730.09	1748146.93	439071.34	39°42'10.2298"N	80°16'59.4800"W	10962.37	345.579	1.38
20900.00	90.620	326.810	8039.21	10448.02	10696.97	-2783.16	1748093.86	439151.33	39°42'11.0158"N	80°17'0.1679"W	11053.10	345.416	0.86
20995.00	90.400	326.290	8038.36	10543.01	10776.23	-2835.52	1748041.50	439230.59	39°42'11.7946"N	80°17'0.8466"W	11143.04	345.258	0.59
21091.00	90.250	326.700	8037.82	10639.01	10856.27	-2888.51	1747988.51	439310.63	39°42'12.5810"N	80°17'1.5335"W	11233.97	345.101	0.45
21186.00	90.370	326.040	8037.30	10734.01	10935.37	-2941.12	1747935.91	439389.73	39°42'13.3582"N	80°17'2.2155"W	11323.98	344.946	0.71
21281.00	90.460	325.780	8036.61	10829.00	11014.05	-2994.37	1747882.66	439468.39	39°42'14.1311"N	80°17'2.9055"W	11413.83	344.791	0.29
21377.00	90.460	327.640	8035.84	10924.99	11094.29	-3047.06	1747829.98	439548.63	39°42'14.9195"N	80°17'3.5886"W	11505.12	344.642	1.94
21472.00	90.400	327.000	8035.13	11019.98	11174.24	-3098.35	1747778.69	439628.58	39°42'15.7053"N	80°17'4.9333"W	11595.84	344.503	0.68
21568.00	90.490	326.820	8034.38	11115.97	11254.67	-3150.76	1747726.28	439709.01	39°42'16.4956"N	80°17'4.9333"W	11687.38	344.360	0.21
21663.00	90.370	326.860	8033.67	11210.97	11334.20	-3202.72	1747674.32	439788.53	39°42'17.2770"N	80°17'5.6070"W	11778.01	344.221	0.13
21759.00	90.340	326.910	8033.08	11306.96	11414.60	-3255.17	1747621.88	439868.93	39°42'18.0671"N	80°17'6.2870"W	11869.68	344.083	0.06
21855.00	90.430	326.850	8032.43	11402.95	11495.01	-3307.62	1747569.43	439949.33	39°42'18.8571"N	80°17'6.9671"W	11961.42	343.947	0.11

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Actual Wellpath Report

ERP 15H awp Proj: 25140'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]
21950.00	90.590	327.130	8031.59	11497.94	11574.67	-3359.37	1747517.68	440028.98	39°42'19.6399"N	80°17'7.6381"W	12052.32	343.815	0.34
22046.00	90.520	327.270	8030.66	11593.93	11655.36	-3411.37	1747465.68	440109.67	39°42'20.4328"N	80°17'8.3125"W	12144.33	343.686	0.16
22142.00	90.430	326.720	8029.86	11689.92	11735.86	-3463.67	1747413.40	440190.17	39°42'21.2239"N	80°17'8.9905"W	12236.32	343.557	0.58
22237.00	90.620	326.840	8028.99	11784.91	11815.33	-3515.71	1747361.35	440269.63	39°42'22.0047"N	80°17'9.6653"W	12327.30	343.429	0.24
22333.00	90.400	326.770	8028.13	11880.91	11895.66	-3568.27	1747308.80	440349.96	39°42'22.7941"N	80°17'10.3467"W	12419.31	343.303	0.24
22428.00	90.400	326.980	8027.47	11975.90	11975.22	-3620.18	1747256.89	440429.51	39°42'23.5758"N	80°17'11.0198"W	12510.46	343.180	0.22
22523.00	90.280	327.030	8026.91	12070.89	12054.90	-3671.91	1747205.16	440509.19	39°42'24.3587"N	80°17'11.6906"W	12601.73	343.059	0.14
22618.00	90.370	326.860	8026.37	12165.89	12134.52	-3723.73	1747153.35	440588.80	39°42'25.1411"N	80°17'12.3625"W	12693.02	342.940	0.20
22714.00	90.460	327.250	8025.67	12261.88	12215.08	-3775.94	1747101.14	440669.36	39°42'25.9327"N	80°17'13.0395"W	12785.38	342.823	0.42
22810.00	90.550	326.980	8024.83	12357.87	12295.70	-3828.06	1747049.03	440749.97	39°42'26.7249"N	80°17'13.7154"W	12877.82	342.707	0.30
22906.00	90.590	326.850	8023.87	12453.86	12376.13	-3880.46	1746996.63	440830.39	39°42'27.5152"N	80°17'14.3949"W	12970.21	342.592	0.14
23001.00	90.460	327.010	8023.00	12548.85	12455.73	-3932.29	1746944.79	440910.00	39°42'28.2974"N	80°17'15.0671"W	13061.71	342.479	0.22
23097.00	90.430	327.240	8022.26	12644.84	12536.36	-3984.40	1746892.69	440990.61	39°42'29.0896"N	80°17'15.7428"W	13154.30	342.368	0.24
23192.00	90.490	327.370	8021.49	12739.82	12616.30	-4035.72	1746841.38	441070.55	39°42'29.8753"N	80°17'16.4083"W	13246.06	342.262	0.15
23288.00	90.520	327.120	8020.65	12835.81	12697.04	-4087.66	1746789.44	441151.28	39°42'30.6686"N	80°17'17.0820"W	13338.80	342.155	0.26
23383.00	90.370	325.470	8019.91	12930.80	12776.06	-4140.37	1746736.73	441230.30	39°42'31.4450"N	80°17'17.7653"W	13430.20	342.044	1.74
23479.00	90.960	325.610	8018.80	13026.78	12855.21	-4194.68	1746682.42	441309.45	39°42'32.2224"N	80°17'18.4691"W	13522.27	341.928	0.63
23575.00	90.740	325.720	8017.37	13122.76	12934.47	-4248.83	1746628.28	441388.71	39°42'33.0011"N	80°17'19.1708"W	13614.44	341.815	0.26
23671.00	90.430	326.290	8016.39	13218.76	13014.06	-4302.50	1746574.61	441468.29	39°42'33.7829"N	80°17'19.8665"W	13706.83	341.706	0.68
23766.00	90.550	325.700	8015.58	13313.75	13092.81	-4355.63	1746521.49	441547.03	39°42'34.5566"N	80°17'20.5551"W	13798.30	341.599	0.63
23862.00	90.520	326.060	8014.68	13409.74	13172.28	-4409.47	1746467.65	441626.50	39°42'35.3373"N	80°17'21.2530"W	13890.73	341.492	0.38
23958.00	90.490	325.860	8013.84	13505.74	13251.83	-4463.21	1746413.91	441706.04	39°42'36.1187"N	80°17'21.9495"W	13983.25	341.387	0.21
24053.00	90.430	326.200	8013.07	13600.73	13330.61	-4516.29	1746360.84	441784.82	39°42'36.8927"N	80°17'22.6375"W	14074.88	341.284	0.36
24149.00	90.460	326.400	8012.33	13696.73	13410.48	-4569.55	1746307.58	441864.68	39°42'37.6773"N	80°17'23.3280"W	14167.63	341.184	0.21
24245.00	90.520	326.030	8011.51	13792.73	13490.26	-4622.93	1746254.20	441944.46	39°42'38.4612"N	80°17'24.0200"W	14260.39	341.084	0.39
24341.00	90.310	326.000	8010.81	13888.72	13569.86	-4676.59	1746200.54	442024.06	39°42'39.2431"N	80°17'24.7156"W	14353.11	340.984	0.22
24436.00	90.430	325.850	8010.20	13983.72	13648.55	-4729.82	1746147.32	442102.74	39°42'40.0161"N	80°17'25.4055"W	14444.87	340.887	0.20
24532.00	90.430	325.960	8009.48	14079.71	13728.05	-4783.63	1746093.51	442182.23	39°42'40.7971"N	80°17'26.1030"W	14537.62	340.789	0.11
24628.00	90.340	325.830	8008.83	14175.70	13807.53	-4837.46	1746039.69	442261.71	39°42'41.5779"N	80°17'26.8007"W	14630.41	340.692	0.16
24724.00	90.090	325.570	8008.47	14271.70	13886.84	-4891.56	1745985.59	442341.01	39°42'42.3569"N	80°17'27.5018"W	14723.17	340.595	0.38

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Actual Wellpath Report

ERP 15H awp Proj: 25140'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	ERP 15H
Field	Monongalia	API	47-061-01963-00-00
Facility	ERP Pad	Wellbore	ERP 15H AWB
Slot	15H		

WELLPATH DATA (275 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
24819.00	90.430	325.980	8008.04	14366.69	13965.39	-4944.99	1745932.16	442419.56	39°42'43.1285"N	80°17'28.1944"W	14815.02	340.502	0.56
24914.00	90.490	326.060	8007.28	14461.69	14044.16	-4998.08	1745879.07	442498.33	39°42'43.9024"N	80°17'28.8826"W	14907.02	340.410	0.11
25010.00	89.630	325.990	8007.18	14557.68	14123.77	-5051.73	1745825.43	442577.93	39°42'44.6844"N	80°17'29.5780"W	15000.03	340.319	0.90
25105.00	89.910	325.960	8007.56	14652.68	14202.51	-5104.89	1745772.27	442656.66	39°42'45.4579"N	80°17'30.2671"W	15092.09	340.230	0.30
25140.00‡	89.910	325.960	8007.61	14687.68	14231.51	-5124.48	1745752.68	442685.66	39°42'45.7428"N	80°17'30.5211"W	15126.01	340.197	0.00

HOLE & CASING SECTIONS - Ref Wellbore: ERP 15H AWB Ref Wellpath: ERP 15H awp Proj: 25140'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
5.5in Casing	28.50	25140.00	25111.50	28.50	8007.61	0.00	0.00	14231.51	-5124.48

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
ERP 15H BHL Rev-1	8062.00	14232.43	-5123.25	1745753.91	442686.59	39°42'45.7520"N	80°17'30.5054"W	point
ERP 15H LP Rev-1	8062.00	1381.38	3423.59	1754300.24	429836.32	39°40'39.4819"N	80°15'39.7495"W	point
ERP Hardline #1 (11.26.2024)	9528.50	11467.34	-7536.69	1743340.62	439921.66	39°42'18.2149"N	80°18'1.0717"W	polygon
	2D Polygon: dimensions not calculated							
ERP Hardline #2 (11.26.2024)	9528.50	11872.00	-6520.11	1744357.14	440326.29	39°42'22.3032"N	80°17'48.1113"W	polygon
	2D Polygon: dimensions not calculated							
ERP Hardline #3 (11.26.2024)	9528.50	11702.61	-6417.89	1744459.35	440156.92	39°42'20.6382"N	80°17'46.7842"W	polygon
	2D Polygon: dimensions not calculated							
ERP Hardline #4 (11.26.2024)	9528.50	11522.40	-6505.88	1744371.36	439976.72	39°42'18.8496"N	80°17'47.8896"W	polygon
	2D Polygon: dimensions not calculated							
ERP Hardline #5 (11.26.2024)	9528.50	10958.81	-7175.29	1743701.99	439413.16	39°42'13.2212"N	80°17'56.3901"W	polygon
	2D Polygon: dimensions not calculated							

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TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
ERP Unit Lines NE (11.26.2024)	10028.50	12254.13	-8259.93	1742617.43	440708.40	39°42'25.9265"N	80°18'10.4150"W	polygon
	2D Polygon: dimensions not calculated							

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
ERP Unit Lines NW (2.27.2025)	10028.50	12254.13	-8259.93	1742617.43	440708.40	39°42'25.9265"N	80°18'10.4150"W	polygon
	2D Polygon: dimensions not calculated							

WELLPATH COMPOSITION - Ref Wellbore: ERP 15H AWB Ref Wellpath: ERP 15H awp Proj: 25140'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.50	1500.00	BH Generic gyro - northseeking (Standard)	1 Imported Gyro Scientific 50' - 1500'	ERP 15H AWB	4/2/2025
1500.00	8211.00	OWSG MWD rev2 + HRGM	2 Imported MWD Scientific 1595' - 8211'	ERP 15H AWB	4/2/2025
8211.00	25140.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	3 BH MWD ATC HRGM Short spacing 8.5" 8318' - 25105'	ERP 15H AWB	4/2/2025

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